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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,019	07/31/2001	Johannes Theodorus A. Meijen	1-2	3691

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Docket Administrator (Rm. 3J-219)
Lucent Technologies Inc.
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Holmdel, NJ 07733-3030

EXAMINER	
PARK, JUNG H	
ART UNIT	**PAPER NUMBER**
2661	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/919,019	MEIJEN ET AL.	
	Examiner	Art Unit	
	Jung Park	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings Objections

1. Drawing elements in Fig. 1-4 need descriptive labels.

Abstract Objections

2. The abstract of the disclosure is objected to because applicant is reminded of the proper language and format for an abstract of the disclosure.

The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The “said” in the line 11 should be removed. Appropriate correction is required.

Specification

3. The disclosure is objected to because of the following informalities:

Applicant is requested to insert section headings such as “summary of the Invention”, “brief description of drawings”, etc.

Since there are so many typos the examiner lists the items for correction.

1) the “point-tomultipoint” should be changed --point-to-multipoint-- in the specification.

2) “Tine: in pg. 1, line 26.

3) “node, From” in pg. 3, line 6.

4) “design,” in pg. 3, line 24.

5) “an flaw” in pg. 3, line 34.

6) “morn” in pg.4, line 13.

7) "2124" in pg. 5, line 23.

8) "~" in pg. 6, line 1.

9) Applicant quotes "ITU 6.983.1" many times, but the examiner assumes that this is --ITU G.983.1--.

Appropriate correction is required.

Claim Objections

4. Claims are objected to because of the following informalities:

Since there are so many typos the examiner lists the items for correction.

1) In claim 2, line 4, the "42" should be changed to --52--.

2) In claim 2, line 7, the "52" should be changed to --42--.

3) In claim 2, line 8, the "42 should be changed to --52--.

4) In claim 6, line 4, the "42" should be changed to --52--.

5) In claim 6, line 10, the "2X" should be changed to --21--.

6) In claim 11, line 2, the "t" should be removed.

7) In claim 11, line 6, the "s" should be removed.

8) In claim 13, line 4, the "17".

9) In claim 27, line 4, the "21-22" should be changed to --21-24--.

10) In claim 27, line 4, the "21-24" should be changed to --21-22--.

11) In claim 27, line 7, "16-31".

12) In claim 29, line 2, "6.983.1".

5. Claim 11 is a duplicated claim of the claim 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

For example, in claim 1, it is not clear what is meant by "linear protection switching" (line 7) and "point-to-point part" (line 8)? How can a method be applied to a point to point part as recited at lines 7-9? Please clarify. Claim 13 has similar problems. In claim 2, the text at lines 2-7 is so ambiguous.

Applicant is advised to revise all claims for full compliance with 35 USC 112, 2nd paragraph.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

9. Claims 1, 6-9, 13, 16, 21-22 and 24-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Harstead et al. (U.S. 6,327,400, hereafter "Harstead").

Regarding claims 1, 13 and 27, Harstead discloses, "a method for protection switching in a point-to-multipoint network (Figure 3; Figure 10; col. 7, lines 63-64), the point-to-multipoint network including a first network end node (*Figure 3, element 40; col. 2, lines 30-31 head end node*) connected by at least one first connection (*Figure 3, elements 46 & 56:1-N*) to at least one second network end node (*Figure 3, elements 54:1-N*), wherein at least one protected second network end node (*Figure 3, elements 54:1-N*) of the at least one second network end nodes (*Figure 3, elements 54:1-N*) is further connected via at least one second connection (*Figure 3, elements 48 & 57:1-N*) to the first network end node, the protection switching method comprising the steps of a applying a linear protection switching method to at least one point-to-point part (*Figure 3, elements 42, 46, 56:1-N; 44, 48, 57:1-N*) of the point-to-multipoint network independently of switching of other point-to-point parts (*Figure 3, elements 42, 46, 56:1-N; 44, 48, 57:1-N*), whereby a point-to point part includes the first network end node connected to one second network end node via at least one of the first connections and second connections."

Regarding claims 6 and 16, Harstead discloses, "a method for protection switching as claimed in claim 1 wherein the linear protection switching method includes the steps of performing a signal fail or signal degrade check (col. 7, line 56-60) for each first connection and each second connection of a protected point-to-point part, and if the result of the signal fail or signal degrade check satisfies a switch condition: switching a point-to-point part associated with the switch condition to the at least one of the at least

one second connections, the switching step including disconnecting the first connections to the second network node of the point-to-point part associated with the switch condition and if this second network end node is a protected second network end node: re-routing a data flow from or to the protected second network end node via the second connections connected to the protected second network end node."

Regarding claim 7, Harstead discloses, "a method for protection switching as claimed in claim 6, wherein the steps of performing the signal fail or signal degrade check and switching to the second connection are performed at the same network end node (Figure 3, elements 40, 54:1-N)."

Regarding claim 8, Harstead discloses, "a method for protection switching as claimed in claim 7, wherein the method is performed at the protected second network end node (Figure 3, elements 54:1-N)."

Regarding claim 9, Harstead discloses, "a method for protection switching as claimed in any of the claim 7, wherein the method is performed at the first network end node (col. 1, lines 34-35 *where a control node means the head end, which is the first network end node*)."

Regarding claim 21, Harstead discloses, "a first network end node as claimed in claim 13, wherein the first network end node is further connected to another network via at least one third connection connected to at least one of the at least one input ports and output ports (Figure 10, element 200 *where there should be at least one input ports for*

incoming and output ports for sending out data packets. It is inherent that there should be at least one input ports and output ports since the head end is coupled to a ring network)."

Regarding claim 22, Harstead discloses, "a first network end node as claimed in claim 13, wherein the first network end node further includes a router device for routing data packets transmitted to the first network end node to one of the at least one output ports, the router device being connected to the protection switch (col. 1, lines 34-35 *where there is a router being connected to the head end*)."

Regarding claims 24 and 25, Harstead discloses, "a first network end node as claimed in claim 13, wherein the first network end node is a Line Termination device (Figure 5, element 82 *where the head end means cable company head end, that is, optical line terminal (OLT)*) and the at least one second network end node is a Network Termination device (Figure 5, element 90 *where the terminal means optical network terminal (ONT) which is coupled to PON (passive optical networks)*)."

Regarding claim 26, Harstead discloses, "a first network end node as claimed in claim 13, wherein the first network end node, the second network end nodes are a wireless network end nodes, the first connection and the at least one second connection are wireless connections (col. 1, line 43 *where CDMA*)."

Regarding claim 28, Harstead discloses, "a point-to-multipoint network, as claimed in claim 27 characterized in that, the network is an passive optical network (Figure 5, col. 4, lines 17-18).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 2-5, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harstead in view of Manchester (U.S. 5,793,745).

Regarding claim 2, Harstead lacks what Manchester discloses, "a method for protection switching as claimed in claim 1, wherein the method is applied in a 1+1 protected point-to-point part (*Manchester, Figure 2A; col. 1, line 59*) whereby a protected point-to-point part includes at least one point-to-point part connecting the first network end node and the second network end node via at least one of the at least one first connections and a protected point to point part further includes at least one point-to-point part connecting the same second network end node to the first network end node via a at least one of the at least one second connections."

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine "1+1 arrangement" in Manchester with Harstead's method for 1+1 protected point-to-point part. The motivation of "1+1 arrangement" is for having a dedicated protection link in a linear protection switching system.

Regarding claim 3, Harstead lacks what Manchester discloses, "a method for protection switching as claimed in claim 1, wherein the method is applied in a 1:1 protected point-to-point part (*Manchester, Figure 2A; col. 1, line 59*)."

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine "1:1 arrangement" in Manchester with Harstead's method for 1:1 protected point-to-point part. The motivation of "1:1 arrangement" is for having a dynamic switched protection link in a linear protection switching system.

Regarding claims 4 and 14, Harstead lacks what Manchester discloses, "a method for protection switching as claimed in claim 1, wherein as linear protection switching method a unidirectional protection switching method is used (Manchester, Figure 4A-D; col 2, line 59 *where only unidirectional method shown*)."

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the unidirectional protection method in Manchester with Harstead's method for the purpose of path restoration. A motivation for path restoration by using unidirectional protection method is to make the UPSR particularly ease to provision and manage since each node in a UPSR makes the decision to switch independently without communicating to any of the other nodes.

Regarding claims 5 and 15, Harstead lacks what Manchester discloses, "a method for protection switching as claimed in claim 1, wherein as the linear protection switching method a bi-directional protection switching method is used (col. 6, line 5 *where in the case of bidirectional protection (BLSR)*)."

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the BLSR in Manchester with Harstead's method for the purpose of path restoration. A motivation for path restoration by using BLSR is to prevents traffic from being misconnected by keeping track of the connections in what is known as a squelch table.

12. Claims 10-12, 17-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harstead in view of Ikawa (U.S. 5,757,769).

Regarding claim 10, Harstead lacks what Ikawa discloses, "a method for protection switching as claimed in claim 6, wherein the signal fail or signal degrade check includes the step of checking the protected second network end node the quality of a data packet transmitted from the first network end node to the protected second network end node via simultaneously the first connection and the at least one second connection and the switch condition satisfied if the quality of the network signal transmitted via the first connection is lower than the quality of the data packet transmitted via the at least one second connection (Ikawa, col. 3, lines 23-31 *where the control switching system is for comparing the quality of the data packet transmitted by two lines* and Figure 6, element 156; col. 5, lines 39-40 *where K-byte analysis is for controlling of switching the work line to the protection line and vice versa which is performed based on information of the K1-byte and the K2-byte included in the overhead of the frame data*)."

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the line switching control system in Ikawa with Harstead's system for the purpose of analyzing overhead information. A motivation for

analyzing overhead information in the frame data is to compare two lines by analyzing SD, SF and other bits in the overhead in order to switch the work line to the standby line in case of line failure or signal degrade.

Regarding claim 11, it is a duplicated claim that is same as claim 10 and therefore rejected for the similar reasons set forth in the rejection of claim 10.

Regarding claims 12 and 20, Harstead lacks what Ikawa discloses, "a method for protection, switching as claimed in claim 11, wherein the network signal includes a payload part containing data transmitted via the network signal and an overhead part including information about the network signal and the transmitted payload part is similar for all connections and the overhead part is different for at least some connections, whereby the transmitted overhead part contains information about the corresponding payload and the connection the overhead part is transmitted by, and the step of performing a signal fail or signal degrade check includes checking the quality of the overhead for each of the connections via which the network signal is transmitted (Ikawa, Figure 2 *where overhead information is changed according to the values of SD and SF indicating signal fail and signal degrade as described in col. 1, lines 53-56*)."

It would have been obvious to one with ordinary skill in the art to have the payload and overhead bits for the same reasons and motivation as in claim 10.

Regarding claim 17, Harstead lacks what Ikawa discloses, "a first network end node as claimed in claim 16, wherein the linear protection switch further includes at least

one conditional switch connected to the at least one signal fail or signal degrade check means (Figure 5 *line switching control system*)."

It would have been obvious to one with ordinary skill in the art to have the payload and overhead bits for the same reasons and motivation as in claim 10.

Regarding claims 18 and 19, they are claims corresponding to claims 10 and 11 and are therefore rejected for the similar reasons set forth in the rejection of claims 10 and 11.

Regarding claim 23, it is claim corresponding to claims 10 and 12 and is therefore rejected for the similar reasons set forth in the rejection of claims 10 and 12.

13. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harstead in view of Kasa et al. (U.S. 2002/0085583, hereinafter "Kasa").

The examiner declares that "ITU 6.981.3" should be changed to "ITU G.981.3" as described in the specification objection.

Regarding claim 29, Harstead lacks what Kasa discloses, "a point-to-multipoint network, as claimed in claim 27 characterized in that, the network is in accordance with ITU recommendation 6.983.1 Option C (*Kasa, Figure 20; col. 1, para. 0005*)."

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 7:10-4:40.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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